UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450

DATE MAILED: 05/26/2009

NOTICE OF ALLOWANCE AND FEE(S) DUE

23405 7590 05/25/2009
HESLIN ROTHENBERG FARLEY & MESITI PC
5 COLUMBIA CIRCLE
ALBANY. NY 1/2/03

EXAMINER
BLUMEL, BENJAMIN P

ART UNIT PAPER NUMBER
1648

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. | |
|-----------------|-------------|----------------------|---------------------|------------------|--|
| 10/538,599 | 07/24/2006 | Sergey Bujanover | 2488,018 | 5440 | |

TITLE OF INVENTION: PRODUCTION OF BACTERIOPHAGE COMPOSITIONS FOR USE IN PHAGE THERAPY

| APPLN. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | YES | \$755 | \$300 | \$0 | \$1055 | 08/26/2009 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT, PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. In equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

| INSTRUCTIONS: This appropriate. All further indicated unless correcte maintenance fee notificat | form should be used to correspondence including d below or directed off tions | for transmitting thing the Patent, adv. nerwise in Block l | e ISSUE ance orde l, by (a) | FEE and PUBLICATE ers and notification of n specifying a new corres | ON FEE (if requir aintenance fees wi condence address; | ed). E II be and/or | Blocks 1 through 5 st mailed to the current (b) indicating a sepa | nould be completed where correspondence address as rate "FEE ADDRESS" for |
|--|--|---|---|--|--|---|--|--|
| | ENCE ADDRESS (Note: Use Bi | iock 1 for any change of | address) | Fee(| s) Transmittal. This rs. Each additional | certif paper. | can only be used for icate cannot be used for such as an assignment ling or transmission. | r domestic mailings of the or any other accompanying nt or formal drawing, must |
| 23405 HESLIN ROTH 5 COLUMBIA (ALBANY, NY 1 | | | П РС | I ber | Cert | ificate | of Mailing or Trans | nission deposited with the United t class mail in an envelope above, or being facsimile ate indicated below. |
| | | | | | | | | (Depositor's name) |
| | | | | | | | | (Signature) |
| | | | | | | | | (Date) |
| APPLICATION NO. | FILING DATE | | FI | RST NAMED INVENTOR | | ATTO | RNEY DOCKET NO. | CONFIRMATION NO. |
| 10/538,599 | 07/24/2006 | | | Sergey Bujanover | | | 2488.018 | 5440 |
| TITLE OF INVENTION | | | | | | | | |
| APPLN, TYPE | SMALL ENTITY | ISSUE FEE DU | E P | PUBLICATION FEE DUE | PREV. PAID ISSUE | FEE | TOTAL FEE(S) DUE | DATE DUE |
| nonprovisional | YES | \$755 | | \$300 | \$0 | | \$1055 | 08/26/2009 |
| EXAM | INER | ART UNIT | | CLASS-SUBCLASS | | | | |
| BLUMEL, BI | | 1648 | | 435-239000 | | | | |
| "Fee Address" indi PTO/SB/47; Rev 03-0 Number is required. 3. ASSIGNEE NAME Al PLEASE NOTE: Uni recordation as set forti | ondence address (or Cha 3/122) attached. ication (or "Fee Address 2 or more recent) attach ND RESIDENCE DATA ess an assignee is ident h in 37 CFR 3.11. Comp | " Indication form aed. Use of a Custo TO BE PRINTE: | omer D ON TH signee da | ata will appear on the pa a substitute for filing an | 3 registered patent ely, firm (having as a gent) and the name neys or agents. If n orinted. e) tent. If an assigne assignment. | memb s of up o nam | er a 2 | ocument has been filed for |
| (A) NAME OF ASSIC | | categories (will ne | | B) RESIDENCE: (CITY | | | , | up entity 🚨 Government |
| 4a. The following fee(s) a Issue Fee Publication Fee (N Advance Order - # | o small entity discount p | permitted) | Ç | Payment of Fee(s): (Plea A check is enclosed. Payment by credit care The Director is hereby overpayment, to Depor | I. Form PTO-2038 authorized to chars | is atta | ched. required fee(s), any de | |
| | s SMALL ENTITY state | is. See 37 CFR 1.2 | | ☐ b. Applicant is no long | | | | |
| NOTE: The Issue Fee and interest as shown by the r | d Publication Fee (if req records of the United Sta | uired) will not be a ites Patent and Tra | ccepted f demark O | from anyone other than the fire. | e applicant; a regis | tered a | attorney or agent; or th | e assignee or other party in |
| Authorized Signature | | | | | Date | | | |
| Typed or printed name | | | | | Registration No | | | |
| This collection of inform an application. Confident submitting the completed this form and/or suggesti Box 1450, Alexandria, V Alexandria, Virginia 223 | ation is required by 37 C itality is governed by 35 I application form to the ons for reducing this but irginia 22313-1450. DC 13-1450. | U.S.C. 122 and 3 U.S.C. 122 and 3 USPTO. Time w. rden, should be ser O NOT SEND FEE | ormation 7 CFR 1. ill vary do nt to the C S OR CC | is required to obtain or no 14. This collection is esti- epending upon the indiv. Chief Information Office DMPLETED FORMS TO | etain a benefit by the mated to take 12 m dual case. Any cor r, U.S. Patent and 1 THIS ADDRESS. | e publ inutes nment Traden SENI | ic which is to file (and to complete, includin s on the amount of tir ark Office, U.S. Deps O TO: Commissioner t | by the USPTO to process) g gathering, preparing, and ne you require to complete utment of Commerce, P.O. for Patents, P.O. Box 1450, |

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandra, Virgima 22313-1450 www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. | |
|-----------------|-----------------|----------------------|---------------------|------------------|--|
| 10/538,599 | 07/24/2006 | Sergey Bujanover | 2488.018 | 5440 | |
| 23405 | 7590 05/26/2009 | EXAMINER | | | |
| HESLIN ROTH | ENBERG FARLEY | BLUMEL, BENJAMIN P | | | |
| 5 COLUMBIA C | | ART UNIT | PAPER NUMBER | | |
| ALBANY, NY 13 | 2203 | 1648 | | | |

DATE MAILED: 05/26/2009

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Application No. Applicant(s) 10/538,599 BUJANOVER, SERGEY Notice of Allowability Examiner Art Unit RENJAMIN P BLUMEL 1648 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. 1. This communication is responsive to applicant's response of March 2, 2009. The allowed claim(s) is/are 1-3, 5-8, 12-14, 16, 18, 19, 47, 48 and 52-59. 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) \square All b) ☐ Some* c) ☐ None of the: 1. T Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). * Certified copies not received: _____. Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. Attachment(s) 1. | Notice of References Cited (PTO-892) 5. Notice of Informal Patent Application 2. Notice of Draftperson's Patent Drawing Review (PTO-948) Interview Summary (PTO-413), Paper No./Mail Date Information Disclosure Statements (PTO/SB/08). 7. X Examiner's Amendment/Comment Paper No./Mail Date 4. T Examiner's Comment Regarding Requirement for Deposit 8. X Examiner's Statement of Reasons for Allowance

U.S. Patent and Trademark Office PTOL-37 (Rev. 08-06)

of Biological Material

//BENJAMIN P BLUMEL//

Examiner, Art Unit 1648

9. ☐ Other .

/Gary B. Nickol /

Supervisory Patent Examiner, Art Unit 1646

Application/Control Number: 10/538,599

Art Unit: 1648

DETAILED ACTION

Applicants are informed that the rejections of the previous Office action not stated below have been withdrawn from consideration in view of the Applicant's arguments and/or amendments.

Claims 1-3, 5-8, 11-14, 16, 18, 19, 44-49 and 51-59. Claims 53-59 are newly added.

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance: the prior art fails to teach or suggest the claimed method that uses a hydrocolloid (agar) concentration below 0.3% and a two-layered (semi-solid/solid) system for producing an intermediate to large scale level of producing bacteriophage at a titer of at least 10¹⁵ pfu.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance"

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Lee J. Fleckenstein on May 7, 2009.

IN THE CLAIMS:

Application/Control Number: 10/538,599

Art Unit: 1648

Claim 11 is cancelled.

Claim 44 is cancelled.

Claim 45 is cancelled.

Claim 46 is cancelled.

Claim 49 is cancelled.

Claim 51 is cancelled.

In claim 54, at lines 1 and 2, "the extracting medium comprises a sugar that reduces or abolishes" has been deleted and --said stock compositions further comprise at least one sugar that reduces- inserted therefor.

In claim 55, lines 1 and 2, "the sugar is present in the extracting medium at a concentration in the range of 0.2-2.0 M" has been deleted and —said sugar is present in said stock compositions at a concentration in the range of 0.1 to 1 M— inserted therefor.

In claim 58, at line 2 after "temperature of" -- about -- has been deleted.

In claim 58, at line 2 after "period of" -- about -- has been deleted.

In claim 58, at line 2 after "hours to" --about-- has been deleted.

In claim 59, at line 2 after "temperature of" -- about-- has been deleted.

In claim 59, at line 2 after "period of" -- about -- has been deleted.

In claim 59, at line 2 after "hours to" --about-- has been deleted.

Conclusion

Claims 1-3, 5-8, 12-14, 16, 18, 19, 47, 48 and 52-59 are allowed.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to BENJAMIN P. BLUMEL whose telephone number is (571)272-

4960. The examiner can normally be reached on M-F, 8-4:30.

Art Unit: 1648

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Nickol can be reached on 571-272-1600. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BENJAMIN P BLUMEL/ Examiner Art Unit 1648

/Gary B. Nickol / Supervisory Patent Examiner, Art Unit 1646